

ELECTRONIC HEALTH REPORTER

ELECTRONIC HEALTH TECHNOLOGY VIEWS AND NEWS

The Future of the Connected Healthcare System

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HIMSS organizers, in preparation of the annual conference and trade show, and as a way to rally attendees around several trending topics for the coming event, are once again asking the healthcare community how it feels about several key issues that are likely to resonate. As is often the case with this ongoing experiment, the folks in my position — those with a venue to voice their opinions who tell the rest of us what they think — pontificate on the potential impact of these trends.

Certainly, some of my fellow journalists are far better qualified than I to answer the questions posed by HIMSS with any level of authority. Therefore, I've given my small microphone to readers of this site so they can voice their opinions of the topics that conference goers are likely to hear about dozens of times while in Chicago.

This year HIMSS is asking what we feel will be the future of: the connected healthcare system, big data, security, innovation and patient engagement. Today, here, we focus on the future of the connected healthcare system, and what several insiders believe that future to be.

With that, enjoy and let me know if you agree with the following thoughts. If not, why; what's missing?

Tom Bizzaro, vice president of health policy, First Databank



We're hoping that the electronic health records (EHR) interoperability movement follows a trajectory similar to that of e-prescribing. To start, as an industry, we have to universally acknowledge the value of interoperability within healthcare IT systems. Indeed, sharing data across systems can help to improve care quality and efficiency in the country's health system and lead to success of value-based reimbursement models. However, all players — providers, payers, patients and vendors alike — need to truly embrace the value EHR interoperability, putting it above any proprietary concerns.

Then, we need to get to work. We must continue to develop and implement a wide range of standards and vocabularies. Through these, we will ensure that our data is in synch and that systems will always be speaking the same language. Perhaps most important, we need a National Patient Identifier, which will make it possible to match information to specific patients as they traverse the health system. And, while it might seem like doing all this work will take a long time, if we roll up our sleeves and do what's required, the EHR interoperability story will be on its way to its own happy ending soon enough.

Jonathan Isaacs, executive vice president and general manager, surgery solutions, SourceMedical



It's 3:00 a.m. and you wake up with an acute pain in your side that won't go away — you head to the ER. The CT scan shows nothing — you head to the GI specialist. The doctor says to get an endoscopy — you head to the ASC. The endoscopy says you have a chronic condition that will need to be managed by you, your PCP, and even more specialists. Where does all that data live? Everywhere!

It's a changing world out there. From cancer centers to freestanding Emergency Departments, healthcare organizations must deliver quality care at lower prices. But information collected at different points can fall through the cracks, putting the patient at risk. That's why data interoperability is a critical issue.

The solution is not to put every entity in the healthcare value chain on the same closed, monolithic EHR that tries to do everything. We have seen time and again what happens when innovation is stifled and vendors become "too big to fail." But by embracing connectivity standards, providers and patients alike can leverage best-in-class tools purposely built for specific treatments and outcomes. The easier it is, the higher the likelihood of success. And isn't that the whole point?

Dr. Ranya Habash, MD, chief medical officer, Everbridge

The future of the connected health system and telemedicine is reliant on widespread adoption of mobile solutions that enable healthcare professionals to communicate securely and quickly. Today, the use of mobile phones and tablets is proliferating in healthcare but, contrary to popular belief, communication through regular apps and messaging platforms (e.g. Skype and FaceTime) is not HIPAA compliant. This has reduced healthcare professionals' ability to text and chat with their peers and patients effectively through mobile technology. So how can our industry find a way to overcome this challenge and effectively collaborate and securely share protected health information (PHI) without fear of non-compliance? Fortunately, new solutions provide the ability to text, video chat and collaborate with patients, doctors and other healthcare professionals using their preferred mobile devices-without violating HIPAA or other compliance mandates. To provide successful medicine these days, we must improve access and delivery of patient care by increasing connectivity across the world's healthcare ecosystem. The best technology is the one we don't even notice, the one that blends seamlessly into our daily lives.

Joe Cisna, MBA, CHP, healthcare solutions manager, Konica Minolta Business Solutions U.S.A.

Healthcare is a dynamic industry and the pace of change relative to regulation, reimbursement and technology is rapid. The topic of interoperability – the ability to exchange patient information between disparate systems – has been top of mind over the past couple of years. It is tied to requirements that are part of a federal stimulus program called meaningful use. This program gives financial incentives to eligible healthcare providers for the meaningful use of certified electronic health record technology for patient information, including interoperability.

But, interoperability mandates have created challenges. Healthcare organizations must now connect disparate systems in an efficient and affordable way, and that can be difficult to achieve. An estimated 30 percent to 40 percent of a patient's medical records exist on paper (or digital equivalents) and the typical way that information is exchanged is via fax. However, fax is neither secure nor efficient, and it certainly does not satisfy any meaningful use standards. So, what is the alternative?

Direct messaging, the standard developed for the secure exchange of patient data, is one answer. Virtually any certified electronic health record technology is capable of sending a secure message. Portals have been used with varying levels of success in sharing documents across the community of care. The primary roadblock, however, remains the under-served community of providers, such as long-term care, home health, therapies and small ambulatory providers, with limited or no EHR. These organizations have limited capability to receive direct messages, and little to no ability to send them. This presents a significant challenge to hospitals trying to meet the meaningful use Stage 2 interoperability requirements that mandate that 10 percent of transitional care summaries must be handled electronically. These transactions are dependent upon this segment of the care continuum to meet their requirements.

Greg Hagood, managing director, SOLIC Capital



The confluence of two major economic and financial stressors in the healthcare industry have put many independent community hospitals into a challenging position. Yet there is a solution that will usher these facilities in this era of connected care.

As community hospitals deal with the pressures of changing reimbursement and the shift in physician needs, they will look to partner with regional health systems that benefit from economies of scale in several areas including physician networks, back-office infrastructure, and managed care contracting.

By partnering with these regional systems, struggling hospitals can address critical needs, such as having a specialist in residence one day a week, without sacrificing the physical community facility. We already see this hub-and-spoke model popping up around the country, and its popularity will only increase with time.

Small communities that are at a loss for such partnerships – because of culture clashes, timing, or other factors that sometimes make these deals difficult – may find themselves dealing with the loss of a hospital facility. To prevent this, executives, both within struggling hospitals and those who care about the American healthcare in general, should work to make these partnerships a time of expansion and growth into this era of connected care.

Dr. Philip Marshall, founder and chief product officer, Conversa Health



Will we lament the loss of a health care where patients see their doctor just one or two times a year with occasional phone calls in between, and have little participation in setting health goals and plans for getting better? Or will we be celebrating the final arrival of health care focused on patient need, available in their daily lives, and supports patients to participate more closely with their doctors on setting health goals? The illusion of the “Marcus Welby good old days” masks the reality of how health care was delivered: largely by doctors’ schedules for ill-informed patients who were not actively engaged in their care.

As we envision a better future ahead, the connected healthcare system will have patient engagement at its core. Starting with offering patients the choice of setting, preferred time and communication channels sets the stage for patient involvement in their care and the ability for their providers to equally contribute and share plans. Digital technology available today will be mainstreamed

while remote video visits and constant connectivity through devices will help drive a continuous process of feedback and improvement.

Patients will still visit doctors' offices/hospitals for needed exams/procedures, emergency care and face-to-face conversations, but these will be focused on those patients that need help, identified through a process of continuous monitoring.

On top of the EHR's foundational role in storing and exchanging health data across systems, the connected healthcare system will have a capability commonly used in other industries: a communications platform that provides dynamic messaging based on an individual's profile and unique needs. Patient profiles will include clinical data, biometric devices data, consumer lifestyle data, and patient-generated data. Since patient goals for being healthy are not static, these platforms provide flexibility for understanding how patients are doing in real-time. Smart health care systems will focus on supporting the trusted doctor-patient relationship as they move into the world of connected healthcare. When we look back, we're confident that instead of focusing on the shortcomings of today, we'll be celebrating the gains that we've made in aligning patients and their care teams around common goals and incentives. The future looks bright indeed.

Andrew Flanagan, CEO, Telcare



The connected health ecosystem is at a crossroads with new digital health technologies emerging every day. However, mainstream success for this wave of innovation will hinge on thoughtful execution. For example – there is a lot of buzz about the Apple Watch and how it will impact consumer adoption of digital health. While I applaud Apple's lofty ambitions and value the innovation and focus these efforts are bringing to the mHealth space, I believe this step falls short of what's needed to drive true clinical value and change in healthcare. I can't help but think that Apple has just joined the healthcare bandwagon without tackling the significant challenges of securely managing sensitive consumer health data.

Right now consumers are clamoring for healthcare apps and devices that are connected to their professional care network and can support remote monitoring to help them manage chronic conditions like diabetes. Supporting these needs is highly dependent on both the type and quality of patient data that is collected, since the goal is to provide clinicians and ultimately patients with trusted and actionable insights. Additionally, as the digital health sector aggregates more and more patient data, the use cases for this data will move beyond treating individuals, towards identifying overarching risk factors for chronic conditions. The result will be an accelerating shift in the focus of chronic disease management, from reactive to preventive treatment.

Beyond delivering insights, the success of remote patient monitoring will depend on the willingness of key stakeholders to more fully embrace and leverage the use of these new technology within their organizations. Combined with top-down reforms, this will lead the way towards a value-based billing cycle and lasting change in the industry, which is already slowly shifting.

Steve Cashman, CEO, HealthSpot



The future of the connected healthcare system lies in solutions that deliver care to patients where it's most convenient for them through unique partnerships that extend the care of traditional health systems and local medical communities through different forms of mobile health and telemedicine. By embracing new technologies, we can treat a greater number of people with more efficient and relevant means of care. With the addition of cloud-based electronic health records and coordination of care between traditional and connected healthcare models, we can build an even better experience for patients and providers.

Building connected healthcare systems will also allow us to engage with patients on a deeper level, incentivizing them to seek care and empowering them to participate in preventative measures. HealthSpot has partnered with Kaiser Permanente San Diego and San Diego County to deliver our award-winning HealthSpot station in their main county operations center for county employees who are Kaiser members. The station is able to provide urgent care telehealth services onsite where a majority of the county's employees work daily. This partnership was part of a larger county initiative to provide wrap around health and wellness services to their employees onsite. By engaging patients where they work, Kaiser Permanente San Diego and the county were able to reduce absenteeism and increase worker health and productivity. By giving people a new way to access care that's affordable and convenient, health systems will see an increase in patient satisfaction and an overall increased health and wellness.??

Dr. John Moore, MD., PhD, CEO and co-founder, Twine Health



The future of connected health is patients taking the lead of their care teams through technology-enabled, real-time collaboration. The solutions will be grounded in learning science and health psychology, empowering people to collaboratively develop unparalleled levels of self-efficacy. People may start as novices, but they gradually become masters, giving back to the system by supporting others. In order to tackle our chronic disease epidemic, we need more than a linearly scaling force of healthcare professionals. We need this exponentially scaling force of health masters.

While most patient apps and clinical systems today don't communicate well, major advances are emerging in startups creating collaborative care platforms. These platforms are designed from the ground up to support continuous teamwork between patients, clinicians, family, friends, and peers. They support shared-decision making, where patients' values are reflected in care plans and leveraged through the expertise of clinicians. They also allow patients to pull data from disparate apps and devices, collecting this information in one place where they can derive associations and get advice from the experts. It won't be long until the larger vision of patients leading their care is realized.

Bob Zemke, director of healthcare solutions, Extreme Networks



Patients across the country are beginning to experience improvements made to hospital workflows and changes to the hospital care models due to meaningful use. While many of these patients have expressed sheer joy at the new ways that they can interact with doctors, what happens if hospital applications don't work the way they are supposed to?

The future of the connected healthcare system is dependent on visibility. Before healthcare organizations are able to deploy new systems and the latest and greatest technology, it is critical that they know what is actually residing in their infrastructure. Having knowledge of all of the applications residing on the network and how those applications are interacting and performing can help the

IT staff tell which applications are causing problems and which ones are not. Without this visibility, these organizations are only asking for problems to occur and are inviting troublesome situations.

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